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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/762,525

01/23/2004

Yukimasa Nishide

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22852

7590

11/17/2009

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EXAMINER

WALKER, KEITH D

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/762,525	<b>Applicant(s)</b> NISHIDE, YUKIMASA	
	<b>Examiner</b> KEITH WALKER	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-22 and 25-35 is/are pending in the application.
- 4a) Of the above claim(s) 10-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-9 and 25-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

No claim amendments were made. Claims 1-3, 6-22, & 25-35 are pending in the application with Claims 10-22 withdrawn. Claims 1-3, 6-9 & 25-35 are pending examination.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 6-9 & 25-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,923,837 (Longhi) in view of US 5,501,916 (Teramoto) and US Patent 6,312,848 (Kilb).

Longhi teaches a wound secondary battery with first and second cells wound around a hollow core (Abstract). First and second electrodes of the same polarity are disposed concentrically around a core and are located first and second distances from the core. A third and fourth electrode of a different polarity as the first and second electrode are disposed concentrically around a core and are located third and fourth distances from the core. A plurality of separators is disposed between the respective electrodes from each other. The edges of the electrodes are extended from the cell such that connections between cells can be made. The polarity and direction of the

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extended electrodes are dependent upon the type of connection warranted. Figure 5A illustrates extending a first polarity and a second polarity electrode on the same side for connection. The cells can be combined in any series or parallel configuration for the intended power application (Figs. 1, 4, 5, 6, 7; 2:45-65, 5:5-45, 5:65-6:5). All the cells are known to be included in a single compartment to form a battery pack (1:60-65).

Regarding claim 9, the method of joining the cells by applying pressure from outside the cell is a product-by-process limitation and even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process (MPEP 2113). The claimed physical features of the joined edge portions are taught, as recited below and therefore the product is taught.

Longhi is silent to the core having a hollow shaft and the shaft configured to allow cooling fluid to pass through the hollow shaft.

Teramoto teaches a spiral wound battery that includes a hollow shaft for allowing a cooling fluid to pass through the hollow shaft (Figs. 3, 5, 9; 4:30-35, 8:35-45). The hollow core allows for lower battery temperatures without decreasing energy density or mechanical strength of the battery (1:60-2:10).

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the core of Longhi with the hollow shaft core

of Teramoto to improve the operating temperature of the battery without decreasing energy density or mechanical strength of the battery.

Longhi is silent to the first edge portion of the first cell being joined to the second edge portion of the second cell such that the first and second edges curve in opposite directions. Longhi is also silent to using a ring member to join the two edges together.

Kilb teaches electrodes with edge portions extending beyond the battery and bending the electrodes in opposite directions to overlap and connect the electrodes through welding. A ring member is used to electrically attach the edge portions of cells (Figs. 7, 8; 3:10-20). The multiple cells are all housed in a single casing (Fig. 6; 3:20-35). The ring member is one of many known methods of electrically connecting electrodes. Using the ring member forms a mechanically firm connection for the electrodes.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the connection means of Longhi with the ring member of Kilb to form a mechanically firm connection between electrodes.

### ***Response to Arguments***

Applicant's arguments filed 7/8/09 have been fully considered but they are not persuasive. Applicant argues Longhi does not teach "first and second cells aligned axially". Applicant states Longhi teaches "a consecutively wound battery in which cylindrical shaped battery cells are aligned concentrically, not axially." While the batteries of Longhi are aligned concentrically, since the axis of each of the batteries is

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aligned with each of the other batteries, the batteries are also aligned axially. As such, the teachings of Longhi anticipate the claim limitation of "first and second cells aligned axially". The teachings of Teramoto and Kilb are not required to teach this limitation as the limitation is taught by Longhi as disclosed above.

Applicant argues "Longhi et al. teaches away from 'a first edge extending from an end of said first cell..., a second edge extending from an adjoining edge of the second cell... said first and second edges overlapping,' as recited in claim 1." First, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The rejection is based on the combined teachings of Longhi, Teramoto and Kilb. Regarding this limitation, applicant only argues the Longhi reference and does not properly address the prior art rejection as a whole. As stated in the rejection, Longhi does not teach the overlapping portions. However, Kilb does teach overlapping edges and using a mechanical fastener to secure the overlapped edges. As illustrated by Longhi, the edges of the anode and cathode extend in such a manner that the edges can be overlapped and secured, as taught by Kilb. Applicant has not addressed the combination of references as applied to the claimed invention and as such the arguments are not persuasive and the claimed invention is obvious over the teachings of the prior art as discussed above.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEITH WALKER whose telephone number is (571)272-3458. The examiner can normally be reached on Mon. - Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Keith Walker/  
Examiner, Art Unit 1795